SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use

industrial use
lubricant or lubricant additive
plasticizer

Uses advised against

1.3 Details of the supplier of the safety data sheet

Company

Information (Product safety):

E-mail:

1.4 Emergency telephone number

Emergency telephone number

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Classification (67/548/EEC, 1999/45/EC)

Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

2.2 Label elements

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Additional Labelling:

EUH210 Safety data sheet available on request.
EUH208 Contains: BISPHENOL A; 4,4'-ISOPROPYLIDENEDIPHENOL. May produce an allergic reaction.

2.3 Other hazards

No hazards to be specially mentioned.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture in the meaning of regulation (EC) 1907/2006.

COMPONENTS TO BE NAMED IN ACCORDANCE WITH REGULATION (EC) 1907/2006 AS WELL AS OTHER HAZARDOUS INGREDIENTS AND CONTAINED SUBSTANCES WITH WORK PLACE LIMIT VALUES

4,4'-isopropylidenediphenol

content: >= 0,45 - <= 0,55 % **component type:** Stabilizer

EC-No.: 201-245-8 **Index-No.:** 604-030-00-0 **CAS-No.:** 80-05-7
REACH No.: 01-2119457856-23-XXXX

Classification (Directive 67/548/EEC):		Repr.Cat.3	R62;
	Xi		R37;
	Xi		R43;
			R52;
	Xi		R41;
Classification (Regulation (EC) No 1272/2008):	Repr.	2	H361
	STOT SE	3	H335
	Eye Dam.	1	H318
	Skin Sens.	1	H317
	Aquatic Chronic	2	H411

For the full text of the R-phrases mentioned in this Section, see Section 16.
For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice	Take off all contaminated clothing immediately.
If inhaled	Remove from exposure, lie down. If breathing is irregular or stopped, administer artificial respiration. Monitor breathing, give oxygen if necessary. Consult a physician.
In case of skin contact	Wash off immediately with plenty of water.
In case of eye contact	Immediately flush eye(s) with plenty of water.
If swallowed	Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Most important symptoms and effects, both acute and delayed	Symptoms: No information available. Risks: No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Indication of any immediate medical attention and special treatment needed	Treatment: No information available.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media	Water spray, Alcohol-resistant foam, Carbon dioxide (CO_2)

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting	Dangerous gases or fumes may occur in case of fire.

5.3 Advice for firefighters

Special protective equipment for firefighters	In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.
Further information	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	Ensure adequate ventilation. Danger of slipping after spill or leakage.

6.2 Environmental precautions

Environmental precautions	Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up	The material taken up must be disposed of in accordance with regulations. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling	No special precautions required.
Advice on protection against fire and explosion	Normal measures for preventive fire protection.
Fire-fighting class	B: Fires involving liquids or liquid containing substances. Also includes substances which become liquid at elevated temperatures.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	Keep container tightly closed in a dry and well-ventilated place. Protect from frost.
Storage class (TRGS 510)	10: Combustible liquids not in Storage Class 3

7.3 Specific end use(s)

Specific use(s)	This information is not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS

NATIONAL OCCUPATIONAL EXPOSURE LIMITS

no data available

EUROPEAN OCCUPATIONAL EXPOSURE LIMITS

no data available

DERIVED NO EFFECT LEVEL (DNEL)

End Use	Exposure routes	Value	Note
Workers	dermal, Acute/short-term exposure - systemic effects		Not relevant / not applicable
Workers	Inhalation, Acute/short-term exposure - systemic effects		Not relevant / not applicable
Workers	dermal, Acute/short-term exposure - local effects		Not relevant / not applicable
Workers	Inhalation, Acute/short-term exposure - local effects		Not relevant / not applicable
Workers	dermal, long-term exposure - systemic effects	4,2 mg/kg	based on body weight and day
Workers	Inhalation, long-term exposure - systemic effects	29,4 mg/m3	
Workers	dermal, long-term exposure - local effects		Not relevant / not applicable
Workers	Inhalation, long-term exposure - local effects		Not relevant / not applicable
Consumers	dermal, Acute/short-term exposure - systemic effects		Not relevant / not applicable
Consumers	Inhalation, Acute/short-term exposure - systemic effects		Not relevant / not applicable
Consumers	Oral, Acute/short-term exposure - systemic effects		Not relevant / not applicable
Consumers	dermal, Acute/short-term exposure - local effects		Not relevant / not applicable
Consumers	Inhalation, Acute/short-term exposure - local effects		Not relevant / not applicable
Consumers	dermal, long-term exposure - systemic effects	2,5 mg/kg	based on body weight and day
Consumers	Inhalation, long-term exposure - systemic effects	8,7 mg/m3	
Consumers	Oral, long-term exposure - systemic effects	2,5 mg/kg	based on body weight and day
Consumers	dermal, long-term exposure - local effects		Not relevant / not applicable
Consumers	Inhalation, long-term exposure - local effects		Not relevant / not applicable

PREDICTED NO EFFECT CONCENTRATION (PNEC)

Environmental Compartment	Value	Note
Fresh water		Not relevant / not applicable
Marine water		Not relevant / not applicable
intermittent release		Not relevant / not applicable
treatment plant		Not relevant / not applicable
Fresh water sediment		Not relevant / not applicable
Marine sediment		Not relevant / not applicable
Soil		Not relevant / not applicable
food		Not relevant / not applicable

8.2 Exposure controls

PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection

No personal respiratory protective equipment normally required. In inadequately ventilated areas, where workplace limits are exceeded, where unpleasant odours exist or where aerosols are in use, or smoke and mist occur, use self-contained breathing apparatus or breathing apparatus with a type A filter or appropriate combined filter (e.g. where aerosols are in use, or smoke and mist occur, A-P2 or ABEK-P2), in compliance with EN 141.

Hand protection

The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other., Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time., Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature).

gloves suitable for permanent contact:

Material: Nitrile rubber/nitrile latex
Break through time: >= 480 min
Material thickness: 0,35 mm

Material: butyl-rubber
Break through time: >= 480 min
Material thickness: 0,5 mm

unsuitable gloves

Material: Natural rubber/natural latex

Eye protection

Tightly fitting safety goggles

Hygiene measures

Avoid contact with the skin and the eyes.

ENVIRONMENTAL EXPOSURE CONTROLS

General advice

Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	liquid; 20 °C; 1.013 hPa
Form	liquid
Colour	yellowish
Odour	characteristic
Odour Threshold	no data available
pH	not applicable
Melting point/range	ca. -50 °C; 1.013 hPa; ASTM D 97-08
Boiling point/boiling range	ca. 346 °C; ca. 1.000 hPa; ASTM E 537-07
Flash point	ca. 240 °C
Evaporation rate	no data available
Flammability (solid, gas)	not applicable (liquid)
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	< 0,001 Pa; 20 °C; OECD Test Guideline 104
Relative vapour density	no data available
Density	ca.0,97 g/cm3; 20 °C; OECD Test Guideline 109
Water solubility	< 1,0 g/l; 20 °C; ASTM E 1148
Partition coefficient: n-octanol/water	log Pow: 10,6; 55 °C; pH: 6,6; OECD Test Guideline 117
Ignition temperature	ca. 389 °C; ca. 1.015 hPa; DIN 51794
Auto-ignition temperature	not auto-flammable
Viscosity, dynamic	ca. 144 mPas; 20 °C
	ca. 50 mPas; 40 °C
Explosive properties	not expected based on structure and functional groups
Oxidizing properties	not expected based on structure and functional groups

9.2 Other data

None known.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Note	Stable at normal ambient temperature and pressure.

10.2 Chemical stability

Note	Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions	Hazardous decomposition products formed under fire conditions.

10.4 Conditions to avoid

Conditions to avoid	Direct heating, dirt, chemical contamination, sunlight, UV or ionising radiation.

10.5 Incompatible materials to avoid

Materials to avoid	None known.;

10.6 Hazardous decomposition products

Thermal decomposition	Stable under normal conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity	LD50 rat: > 2.000 mg/kg; OECD Test Guideline 401 Based on available data, the classification criteria are not met.
Acute inhalation toxicity	study scientifically unjustified Data are available from alternate exposure routes.
Acute dermal toxicity	LD50 rat: > 2.000 mg/kg; OECD Test Guideline 402 Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Skin irritation	rabbit: slightly irritating; OECD Test Guideline 404 Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Eye irritation	rabbit: not irritating; OECD Test Guideline 405 Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation

Sensitisation	Maximisation Test guinea pig: not sensitizing; OECD Test Guideline 406 Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity in vitro	In vitro tests did not show mutagenic effects
Genotoxicity in vivo	study scientifically unjustified In vitro tests did not show mutagenic effects
Remarks	

Based on available data, the classification criteria are not met.

Carcinogenicity

Carcinogenicity
The substance has been shown to be not genotoxic, therefore it is not expected to have a carcinogenic potential.

Remarks
Based on available data, the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity
study scientifically unjustified
Justification:
No indication of substance-related effects in repeat dose studies, reproductive screening studies and developmental toxicity studies.

Teratogenicity
rat; Oral
NOAEL: 1.000 mg/kg (based on body weight and day)
NOAEL (dam): 300 mg/kg (based on body weight and day); OECD Test Guideline 414

Remarks-Teratogenicity
Based on available data, the classification criteria are not met.

STOT - single exposure

Remarks
The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

Remarks
The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity
rat; Oral; Subacute toxicity
NOAEL: 300 mg/kg (based on body weight and day)
LOAEL: 1.000 mg/kg (based on body weight and day); OECD Test Guideline 407
Target Organs: Adrenal gland

Aspiration hazard

Aspiration toxicity
not applicable

Toxicological information
The substance is expected to be rapidly absorbed and excreted.
Bioaccumulation is unlikely.
(literature value)

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish
(96 h) Danio rerio (zebra fish); semi-static test

	In the range of water solubility not toxic under test conditions.
Toxicity to fish - Chronic toxicity	study scientifically unjustified Justification: Sufficient information is available to predict no toxicity at the limit of solubility.
Toxicity to daphnia and other aquatic invertebrates	(48 h) Daphnia magna (Water flea); static test In the range of water solubility not toxic under test conditions.
Toxicity to daphnia and other aquatic invertebrates - Chronic toxicity	NOEC (21 d) Daphnia magna (Water flea): > 1 - 10 mg/l; reproduction rate; semi-static test; OECD Test Guideline 202, part 2
Toxicity to aquatic plants	(72 h) Desmodesmus subspicatus (green algae); static test; In the range of water solubility not toxic under test conditions.
Toxicity to bacteria	EC10 (4,75 h) Pseudomonas putida: 980 mg/l; oxygen consumption test
Toxicity to soil dwelling organisms	LC10 (14 d) Eisenia fetida (earthworms): > 1.000 mg/kg; mortality; artificial soil
Toxicity to terrestrial flora	emergence, growth; EC50 (18 d): > 100 mg/kg; emergence, growth; Triticum aestivum (wheat), Lepidium sativum (cress), Brassica alba (mustard); OECD Test Guideline 208
Toxicity for other terrestrial non-mammalian fauna	The study is not necessary. Justification: Studies on birds do not need to be conducted due to large mammalian dataset. Accumulation in terrestrial organisms is unlikely.

12.2 Persistence and degradability

Biodegradability	inherently biodegradable; 20,7 %; 28 d; aerobic; OECD Test Guideline 301 B

12.3 Bioaccumulative potential

Bioaccumulation	Bioconcentration factor (BCF): 19,3; calculated (literature value) Bioaccumulation is unlikely.

12.4 Mobility in soil

Mobility	Adsorption/Soil/Sewage sludge; Medium: Sewage sludge - soil; log Koc: > 5,67; OECD Test Guideline 121 immobile

12.5 Results of PBT and vPvB assessment

Results of PBT assessment	Based on available data, the classification criteria are not met.

12.6 Other adverse effects

General advice	None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product	Following pre-treatment and observing the regulations for hazardous wastes, it must be taken to a permitted hazardous wastes landfill or hazardous wastes incinerator.
Contaminated packaging	Packaging that cannot be cleaned must be disposed of in the same way as the material itself.
waste code of the European Union: EWC	A waste code in accordance with the European Waste Catalogue (EWC) may not be assigned to this product since it admits of a classification only when the consumer uses it for some purpose.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
ICAO/IATA	Not dangerous goods

14.2 Proper shipping name

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
ICAO/IATA	Not dangerous goods

14.3 Transport hazard class

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
ICAO/IATA	Not dangerous goods

14.4 Packing group

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
ICAO/IATA	Not dangerous goods

14.5 Environmental hazards

ADR	Environmentally hazardous	no
RID	Environmentally hazardous	no
ADN	Environmentally hazardous	no
IMDG	Marine pollutant	no
ICAO/IATA	Environmentally hazardous	no

14.6 Special precautions for user

Not classified as dangerous in the meaning of transport regulations.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Remarks No information available.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

NATIONAL/OTHER REGULATIONS

Directive 96/82/EC on the control of major-accident hazards involving dangerous substances	list entry in the directive: Directive 96/82/EC does not apply

NOTIFICATION STATUS

US. Toxic Substances Control Act	TSCA	n (Negative listing)
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)	DSL	n (Negative listing)
Australia. Industrial Chemical (Notification and Assessment) Act	AICS	y (positive listing)
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand	NZIOC	y (positive listing)
Japan. Kashin-Hou Law List	ENCS (JP)	y (positive listing)
Japan. Industrial Safety & Health Law (ISHL) List	ISHL (JP)	y (positive listing)
Korea. Existing Chemicals Inventory (KECI)	KECI (KR)	y (positive listing)
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	PICCS (PH)	y (positive listing)
China. Inventory of Existing Chemical Substances	INV (CN)	y (positive listing)
Switzerland. Consolidated Inventory	CH INV	y (positive listing)

Please note: the names and CAS numbers which are used for this product in the stated inventories may deviate from the information which is listed in chapter 3.

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for this substance.

SECTION 16: OTHER INFORMATION

Text of R-phrases mentioned in Section 3

R37	Irritating to respiratory system.
R41	Risk of serious damage to eyes.
R43	May cause sensitisation by skin contact.
R52	Harmful to aquatic organisms.
R62	Possible risk of impaired fertility.

Full text of H-Statements referred to under sections 2 and 3.

H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H361	Suspected of damaging fertility or the unborn child.
H411	Toxic to aquatic life with long lasting effects.

Safety datasheet sections which have been updated:

3. Composition/information on ingredients

Further information:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.
This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

Key or legend to abbreviations and acronyms used in the safety data sheet

ADN	Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
AICS	Australian Inventory of Chemical Substances
ANSI	American National Standards Institute
ASTM	American Society of Testing and Materials (US)
BCF	Bioconcentration factor
CLP	Regulation on Classification, Labelling and Packaging of Substances and Mixtures
DIN	Deutsches Institut für Normung
DNEL	Derived No-Effect Level
DSL	Domestic Substances List
EC...	Effect concentration ... %
ENCS	Existing Notified Chemical Substances (Japan)
EWC	European Waste Catalogue
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISHL	Industrial Safety and Health Law (Japan)
ISO	International Organization for Standardization
IUAPC	International Union of Pure and Applied Chemistry
KECI	Korea Existing Chemicals Inventory
LC...	Lethal Concentration, ...%
LD...	Lethal Dose, ...%
MARPOL	International Convention for the Prevention of Pollution From Ships
NDSL	Non-Domestic Substances List
NOAEL	no observable adverse effect level
NOEL/NOEC	No Observed-effect level/concentration
NZIoC	New Zealand Inventory of Chemicals
OECD	Organisation for Economic Co-operation and Development
PBT	persistent, bioaccumulative, toxic
PICCS	Philippine Inventory of Chemicals and Chemical Substances
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport international ferroviaire de marchandises dangereuses
TG	Test Guideline
TRGS	Technische Regeln für Gefahrstoffe
TSCA	Toxic Substances Control Act
vPvB	very persistent, very bioaccumulative
WGK	Wassergefährdungsklasse

Annex

Attachments to the safety data sheet and/or lists of the identified uses for the listed substances can be downloaded using the internet links below.